

DP-302900

A METHOD AND APPARATUS FOR PREHEATING
OF A FUEL CELL MICRO-REFORMER

ABSTRACT OF THE DISCLOSURE

An apparatus and method for a preheated micro-reformer system is disclosed comprising a reformer and a micro-reformer in fluid communication with the reformer. The micro-reformer being electrically preheatable. An apparatus comprising a micro-reformer including a first zone and a second zone, the first zone being preheatable to a first temperature and the second zone being preheatable to a second temperature, the second temperature being higher than the first temperature.

A method of using a micro-reformer that is electrically preheatable is disclosed comprising initiating an electrically preheatable micro-reformer. The micro-reformer is preheated. The preheating can be accomplished by converting electrical energy into thermal energy. A method of using a preheated micro-reformer is disclosed comprising preheating a first zone, preheating a second zone to a temperature higher than the first zone, vaporizing a fuel air mixture in the first zone, and reforming the fuel air mixture in the second zone.